REMARKS

This paper is being provided in response to the February 28, 2003 Office Action for the above-referenced application. In this response, Applicants have added Claims 148-150, cancelled Claim 147, and amended Claims 1, 36, 37, 38, 43, 51, 59, 82-85, 103, 104, 132-137, and 140-145 in order to clarify that which Applicants deem to be the claimed invention. Applicants respectfully submit that the modifications to the claims are all supported by the originally filed application.

The rejection of Claims 1-50, 132-134 and 140-142 under 35 U.S.C. 103(a) as being unpatentable over Nanjo et al. (U.S. Patent No. 5,778,361, hereinafter referred to as "Nanjo") and in view of Culliss (U.S. Patent No. 6,006,222, hereinafter referred to as "Culliss") is hereby traversed and reconsideration thereof is respectfully requested. Applicants respectfully submit that Claims 1-50, 132-134 and 140-142, as amended herein, are patentable over the references, taken separately or in combination.

Claim 1, as amended herein, recites a method of fulfilling an information need based on documents and an index stored on a computer-readable medium comprising the steps of: receiving a query containing an unspecified portion; identifying one or more documents in the index that contain a match for at least a portion of the query; locating one or more strings which are matches for the unspecified portion in the query within the identified one or more documents; and producing results in which each of said one or more strings is ranked in accordance with a frequency of said each string within one or more documents. Claims 2-35 depend from Claim 1.

Claim 36, as amended herein, recites a method of fulfilling an information need based on documents and an index stored on a computer-readable medium comprising the steps of: receiving a query containing an unspecified portion; identifying one or more documents in the index that contain a match for at least a portion of the query; locating a plurality of strings which are matches for the unspecified portion in the query within the identified one or more documents; and producing results in which each of said plurality strings is ranked in accordance with a frequency of said each string within one or more documents.

Claim 37, as amended herein, recites a method of fulfilling an information need based on documents and an index stored on a computer-readable medium comprising the steps of: storing an index identifying documents containing terms; receiving a query containing an unspecified portion; identifying one or more documents in the index that contain a match for at least a portion of the query; and locating one or more strings which are matches for the unspecified portion in the query within the identified one or more documents; and producing results in which each of said one or more strings is ranked in accordance with a frequency of said each string within one or more documents.

Claim 38, as amended herein, recites a method of fulfilling an information need comprising the steps of: receiving a query containing an unspecified portion, the unspecified portion including an unspecified term; identifying a string which is a match for the unspecified portion in the query within a body of information stored on a computer-readable medium; and producing results in which said string is ranked in accordance with a frequency of said each string within a body of information. Claims 39-42 depend from Claim 38.

Claim 43, as amended herein, recites a method of fulfilling an information need comprising the steps of: receiving a query containing an unspecified portion, the unspecified portion including an unspecified term; identifying a plurality of strings which are matches for the unspecified portion of the query within a body of information stored on a computer-readable medium; and producing results in which each of said plurality of strings is ranked in accordance with a frequency of said each string within a body of information. Claims 44-50 depend from Claim 43.

Claim 132, as amended herein, recites an apparatus for fulfilling an information need based on documents and an index stored on a computer-readable medium comprising: memory means that stores computer-executable process steps; and a processor that executes the process steps so as (i) to receive a query containing an unspecified portion, (ii) to identify one or more documents in the index that contain a match for at least a portion of the query, (iii) to locate one or more strings which are matches for the unspecified portion of the query within the identified one or more documents, and (iv) to produce results in which each of said one or more strings is ranked in accordance with a frequency of said each string within one or more documents.

Claim 133, as amended herein, recites an apparatus for fulfilling an information need comprising: memory means that stores computer-executable process steps; and a processor that executes the process steps so as to (i) receive a query containing an unspecified portion, the unspecified portion including an unspecified term, (ii) identify a string which is a match for the unspecified portion of the query within a body of information stored on a computer-readable medium, and (iii) produce results in which said string is ranked in accordance with a frequency of said string within a body of information.

Claim 134, as amended herein, recites an apparatus for fulfilling an information need comprising: memory means that stores computer-executable process steps; and a processor that executes the process steps so as to(i) receive a query containing an unspecified portion, the unspecified portion including an unspecified term,(ii) identify a plurality of strings which are matches for the unspecified portion of the query within a body of information stored on a computer-readable medium, and (iii) produce results in which each of said plurality of strings is ranked in accordance with a frequency of said each string within a body of information.

Claim 140, as amended herein, recites a computer-executable process steps stored on a computer-readable medium, the computer-executable process steps to fulfill an information need based on documents and an index also stored on a computer-readable medium, the computer-executable process steps comprising: code to receive a query containing an unspecified portion; code to identify one or more documents in the index that contain a match for at least a portion of the query; code to locate one or more strings which are matches for the unspecified portion of the query within the identified one or more documents; and code to produce results in which each of said one or more strings is ranked in accordance with a frequency of said each string within one or more documents.

Claim 141, as amended herein, recites computer-executable process steps stored on a computer-readable medium, the computer-executable process steps to fulfill an information need, the computer-executable process steps comprising: code to receive a query containing an unspecified portion, the unspecified portion including an unspecified term; code to identify a string which is a match for the unspecified portion of the query within a body of information

stored on a computer-readable medium; and code to produce results in which said string is ranked in accordance with a frequency of said string within a body of information.

Claim 142, as amended herein, recites computer-executable process steps stored on a computer-readable medium, the computer-executable process steps to fulfill an information need, the computer-executable process steps comprising: code to receive a query containing an unspecified portion, the unspecified portion including an unspecified term; code to identify a plurality of strings which are matches for the unspecified portion of the query within a body of information stored on a computer-readable medium; and code to produce results in which each of said plurality of strings is ranked in accordance with a frequency of said each string within a body of information.

Nanjo discloses a method and system for fast indexing and searching of text in compound word languages such as Japanese. (See Abstract). Nanjo discloses creating a content index by generating a reference to each object that contains an index term. (Col. 5, Line 38-42). Nanjo discloses performing step indexing so that each symbol or character is treated as the potential beginning of a word. (Col. 5, Line 65-Col. 6, Line 21). Nanjo discloses using a wildcard character for pattern matching of an index term. (Col. 6, Lines 23-50). Nanjo includes a direct search system that directly searches an object, such as a document or file, based on the query and generates the search result or a portion of the search result. (Col. 7, Lines 24-28).

Culliss discloses a method of organizing information in which the search activity of a user is monitored and such activity is used to organize articles in a subsequent search by the same or another user who enters a similar search query. (See Abstract). Culliss discloses

maintaining an index of key terms and that articles are associated with each of these key terms. A key term score is associated with each article for each of the key terms. Culliss accepts a search query from a user and having a search engine identify key terms that match the search query. These key terms are referred to as matched key terms. The search engine then identifies articles (matched articles) associated with the matched key terms. The search engine then displays a squib of each of the matched articles. Once the user selects a matched article, the index can be altered such that the key term scores for the selected matched article under the matched key terms are altered relative to other key term scores. (Col. 3, Line 56-Col. 4, Line 41). For the next search by either the same or a different user, Culliss discloses ranking the matched article by using the key term scores that may be associated in any manner to create a comparison score for each matched article. The matched articles can then be displayed in order of comparison superiority score. (Col. 4, Line 66-Col. 5, Line 10). Culliss also discloses compensating for disparate search activity for certain articles relative to others by including a key term total score for each key term score of each article under each key term. After each search query is entered, or other event occurs, the index could be altered such that the key term total score of each matched article under each matched key term is altered relative to other key term total scores (Col. 5, Lines 20-31).

Applicants' amended Claim 1 is neither disclosed nor suggested by the references, taken separately or in combination, in that the references neither disclose nor suggest ***a method of fulfilling an information need based on documents and an index stored on a computer-readable medium comprising the steps of: receiving a query containing an unspecified portion; identifying one or more documents in the index that contain a match for at least a portion of the query; locating one or more strings which are matches for the unspecified***

portion in the query within the identified one or more documents; and producing results in which each of said one or more strings is ranked in accordance with a frequency of said each string within one or more documents, as set forth in Applicants' amended Claim 1. Nanjo discloses using an index search to return documents which are then searched sequentially with a direct search to verify that the full search string is matched. The search results of Nanjo comprise a list of document file names and/or path names identifying the object satisfying the search criteria. Nanjo's search results is a list of objects, such as documents, not ***results in which each of said one or more strings which are matches for the unspecified portion of the query is ranked***, as in Applicants' amended Claim 1. Culliss discloses displaying results of matched articles that may be ranked rather than ***results in which strings which are matches for the unspecified portion are ranked***, as in Applicants' amended Claim 1. Accordingly, the references neither disclose nor suggest at least the feature of ***locating one or more strings which are matches for the unspecified portion in the query within the identified one or more documents; and producing results in which each of said one or more strings is ranked in accordance with a frequency of said each string within one or more documents,*** as set forth in Applicants' amended Claim 1.

Applicant respectfully submit that Claims that depend from Claim 1 are patentable for at least the reasons set forth in Claim 1. In particular, the references, taken separately or in combination, neither disclose nor suggest a restriction that includes ***a morphological feature***, as set forth in Applicants' Claim 15, or a restriction that includes ***a syntactic feature***, as set forth in Applicants' Claim 16. In contrast, Nanjo discloses tokenizing by step indexing (See Col. 6, Lines 13-21) and searching through pattern matching using a wildcard (See Col. 6, Lines 22-50), and Culliss discloses using search activity of a user to effect a later similar search query.

For reasons similar to those set forth regarding Claim 1, Applicants' Claim 36 is also neither disclosed nor suggested by the references. In particular, the references neither disclose nor suggest ***a method of fulfilling an information need based on documents and an index stored on a computer-readable medium comprising the steps of: receiving a query containing an unspecified portion; identifying one or more documents in the index that contain a match for at least a portion of the query; locating a plurality of strings which are matches for the unspecified portion in the query within the identified one or more documents; and producing results in which each of said plurality strings is ranked in accordance with a frequency of said each string within one or more documents,*** as set forth in amended Claim 36.

For reasons similar to those set forth regarding Claim 1, Applicants' Claim 37 is also neither disclosed nor suggested by the references. In particular, the references neither disclose nor suggest ***a method of fulfilling an information need based on documents and an index stored on a computer-readable medium comprising the steps of: storing an index identifying documents containing terms; receiving a query containing an unspecified portion; identifying one or more documents in the index that contain a match for at least a portion of the query; locating one or more strings which are matches for the unspecified portion in the query within the identified one or more documents; and producing results in which each of said one or more strings is ranked in accordance with a frequency of said each string within one or more documents,*** as set forth in amended Claim 37.

For reasons similar to those set forth regarding Claim 1, Applicants' Claim 38 is also neither disclosed nor suggested by the references. In particular, the references neither disclose

nor suggest ***a method of fulfilling an information need comprising the steps of: receiving a query containing an unspecified portion, the unspecified portion including an unspecified term; identifying a string which is a match for the unspecified portion in the query within a body of information stored on a computer-readable medium; and producing results in which said string is ranked in accordance with a frequency of said each string within a body of information,*** as set forth in amended Claim 38.

For reasons similar to those set forth regarding Claim 1, Applicants' Claim 43 is also neither disclosed nor suggested by the references. In particular, the references neither disclose nor suggest ***a method of fulfilling an information need comprising the steps of: receiving a query containing an unspecified portion, the unspecified portion including an unspecified term; identifying a plurality of strings which are matches for the unspecified portion of the query within a body of information stored on a computer-readable medium; and producing results in which each of said plurality of strings is ranked in accordance with a frequency of said each string within a body of information***, as set forth in amended Claim 43.

For reasons similar to those set forth regarding Claim 1, Applicants' Claim 132 is also neither disclosed nor suggested by the references. In particular, the references neither disclose nor suggest ***an apparatus for fulfilling an information need based on documents and an index stored on a computer-readable medium comprising: memory means that stores computer-executable process steps; and a processor that executes the process steps so as (i) to receive a query containing an unspecified portion, (ii) to identify one or more documents in the index that contain a match for at least a portion of the query, (iii) to locate one or more strings which are matches for the unspecified portion of the query within the identified one or more***

documents, and (iv) to produce results in which each of said one or more strings is ranked in accordance with a frequency of said each string within one or more documents, as set forth in amended Claim 132.

For reasons similar to those set forth regarding Claim 1, Applicants' Claim 133 is also neither disclosed nor suggested by the references. In particular, the references neither disclose nor suggest ***an apparatus for fulfilling an information need comprising: memory means that stores computer-executable process steps; and a processor that executes the process steps so as to (i) receive a query containing an unspecified portion, the unspecified portion including an unspecified term, (ii) identify a string which is a match for the unspecified portion of the query within a body of information stored on a computer-readable medium, and (iii) produce results in which said string is ranked in accordance with a frequency of said string within a body of information,*** as set forth in amended Claim 133.

For reasons similar to those set forth regarding Claim 1, Applicants' Claim 134 is also neither disclosed nor suggested by the references. In particular, the references neither disclose nor suggest ***an apparatus for fulfilling an information need comprising: memory means that stores computer-executable process steps; and a processor that executes the process steps so as to(i) receive a query containing an unspecified portion, the unspecified portion including an unspecified term, (ii) identify a plurality of strings which are matches for the unspecified portion of the query within a body of information stored on a computer-readable medium, and (iii) produce results in which each of said plurality of strings is ranked in accordance with a frequency of said each string within a body of information,*** as set forth in amended Claim 134.

For reasons similar to those set forth regarding Claim 1, Applicants' Claim 140 is also neither disclosed nor suggested by the references. In particular, the references neither disclose nor suggest ***computer-executable process steps stored on a computer-readable medium, the computer-executable process steps to fulfill an information need based on documents and an index also stored on a computer-readable medium, the computer-executable process steps comprising: code to receive a query containing an unspecified portion; code to identify one or more documents in the index that contain a match for at least a portion of the query; code to locate one or more strings which are matches for the unspecified portion of the query within the identified one or more documents; and code to produce results in which each of said one or more strings is ranked in accordance with a frequency of said each string within one or more documents,*** as set forth in amended Claim 140.

For reasons similar to those set forth regarding Claim 1, Applicants' Claim 141 is also neither disclosed nor suggested by the references. In particular, the references neither disclose nor suggest ***computer-executable process steps stored on a computer-readable medium, the computer-executable process steps to fulfill an information need, the computer-executable process steps comprising: code to receive a query containing an unspecified portion, the unspecified portion including an unspecified term; code to identify a string which is a match for the unspecified portion of the query within a body of information stored on a computer-readable medium; and code to produce results in which said string is ranked in accordance with a frequency of said string within a body of information,*** as set forth in amended Claim 141.

For reasons similar to those set forth regarding Claim 1, Applicants' Claim 142 is also neither disclosed nor suggested by the references. In particular, the references neither disclose nor suggest ***computer-executable process steps stored on a computer-readable medium, the computer-executable process steps to fulfill an information need, the computer-executable process steps comprising: code to receive a query containing an unspecified portion, the unspecified portion including an unspecified term; code to identify a plurality of strings which are matches for the unspecified portion of the query within a body of information stored on a computer-readable medium; and code to produce results in which each of said plurality of strings is ranked in accordance with a frequency of said each string within a body of information***, as set forth in amended Claim 142.

In view of the foregoing, Applicants respectfully request that the rejection be reconsidered and withdrawn.

The rejection of Claims 51-58, under 35 U.S.C. 103(a) as being unpatentable over Nanjo in view of Culliss, and in further view of Iselin et al. (Beyond the Basic, The Dialog Corporation, 1998, hereinafter referred to as "Iselin") is hereby traversed and reconsideration thereof is respectfully requested. Applicants respectfully submit that Claims 51-58, as amended herein, are patentable over the references, taken separately or in combination.

Claim 51, as amended herein, recites a method of fulfilling an information need comprising the steps of: receiving a query containing an ***unspecified portion, the unspecified portion including a designated unspecified term; identifying a plurality of strings which are matches for the unspecified portion of the query within a body of information stored on a***

computer-readable medium; and producing results in which each of said plurality of strings is ranked in accordance with a frequency of said each string within a body of information,Claims 52-58 depend from Claim 51.

The references of Nanjo and Culliss are summarized above.

Iselin discloses search services used in connection with searching using the Dialog search system. (Introduction iii). Iselin discloses using prefix codes in commands to narrow a search (pages 3-1 and 3-2).

Applicants' Claim 51, as amended herein, is neither disclosed nor suggested by the references, taken separately or in combination, in that the references neither disclose nor suggest ***a method of fulfilling an information need comprising the steps of: receiving a query containing an unspecified portion, the unspecified portion including a designated unspecified term; identifying a plurality of strings which are matches for the unspecified portion of the query within a body of information stored on a computer-readable medium; and producing results in which each of said plurality of strings is ranked in accordance with a frequency of said each string within a body of information,*** as set forth in Applicants' Claim 51. As set forth above, Nanjo discloses using an index search to return documents which are then searched sequentially with a direct search to verify that the full search string is matched. The search results of Nanjo comprise a list of document file names and/or path names identifying the object satisfying the search criteria. Nanjo's search results is a list of objects, such as documents, not ***results in which each of said plurality of strings matching the unspecified portion is ranked in accordance with a frequency of said each string within a***

body of information, as set forth in Applicants' Claim 51. Culliss discloses displaying results of matched articles that may be ranked rather than ***results in which each of said plurality of strings which are matches for the unspecified portion is ranked,*** as set forth in Applicants' Claim 51. Iselin appears silent with regard to results that include strings, which are matches to the unspecified portion, that are ranked. Thus, Iselin does not overcome the foregoing deficiencies of Nanjo and Culliss with respect to Applicants' amended Claim 51. Accordingly, the references do not disclose or suggest at least the feature of ***identifying a plurality of strings which are matches for the unspecified portion of the query within a body of information stored on a computer-readable medium; and producing results in which each of said plurality of strings is ranked in accordance with a frequency of said each string within a body of information,*** as set forth in Applicants' Claim 51.

In view of the foregoing, Applicants respectfully request that the rejection be reconsidered and withdrawn.

The rejection of Claims 59-103, 135-136 and 143-144 under 35 U.S.C. 103(a) as being unpatentable over Wical (U.S. Patent No. 5,953,718, hereinafter referred to as "Wical") and in view of Culliss is hereby traversed and reconsideration thereof is respectfully requested. Applicants respectfully submits that Claims 59-103, 135-136 and 143-144, as amended herein, are patentable over the references, taken separately or in combination.

Claim 59, as amended herein, recites a method of fulfilling an information need based on documents and an index stored on a computer-readable medium comprising the steps of: storing contexts for terms, wherein a context occurs in a document; storing information identifying a

document in which a context occurs; receiving a query containing an unspecified portion; identifying one or more strings which are matches for the unspecified portion of the query within the contexts; and producing results in which each of said one or more strings is ranked in accordance with a frequency of said each string within one or more contexts. Claims 60-81 depend from Claim 59.

Claim 82, as amended herein, recites a method of fulfilling an information need based on documents stored on a computer-readable medium comprising the steps of: storing an index identifying documents containing terms; storing contexts for terms, wherein a context occurs in a document; storing information identifying a document in which a context occurs; receiving a query containing an unspecified portion; receiving a query containing an unspecified portion; identifying one or more strings which are matches for the unspecified portion of the query within the contexts; and producing results in which each of said one or more strings is ranked in accordance with a frequency of said each string within one or more contexts.

Claim 83, as amended herein, recites a method of fulfilling an information need based on documents stored on a computer-readable medium comprising the steps of: storing an index identifying documents containing terms; storing contexts for terms, wherein a context occurs in a document; storing information identifying a document in which a context occurs; receiving a query containing an unspecified portion; identifying a plurality of strings which are matches for the unspecified portion of the query within the contexts; and producing results in which each of said plurality strings is ranked in accordance with a frequency of said each string within one or more contexts.

Claim 84, as amended herein, recites a method of fulfilling an information need based on documents and an index stored on a computer-readable medium comprising the steps of: storing contexts for terms, wherein the context occurs in a document;storing information identifying a document in which a context occurs; receiving a query containing an unspecified portion; identifying a plurality of strings which are matches for the unspecified portion of the query within the contexts; and producing results in which each of said plurality of strings is ranked in accordance with a frequency of said each string within one or more contexts.

Claim 85, as amended herein, recites a method of fulfilling an information need comprising the steps of: storing contexts in which terms occur; receiving a query containing an unspecified portion; identifying one or more strings which are matches for the unspecified portion of the query within the contexts; and producing results in which each of said one or more strings is ranked in accordance with a frequency of said each string within one or more contexts. Claims 86-102 depend from Claim 85.

Claim 103, as amended herein, recites a method of fulfilling an information need comprising the steps of: storing contexts in which terms occur; receiving a query containing an unspecified portion; identifying one or more strings which are matches for the unspecified portion of the query within the contexts; and producing results in which each of said one or more strings is ranked in accordance with a frequency of said each string within one or more contexts.

Claim 135, as amended herein, recites an apparatus for fulfilling an information need comprising: memory means that stores computer-executable process steps; and a processor that executes the process steps so as to(i) store contexts for terms, wherein a context occurs in a document, (ii) store information identifying a document in which a context occurs, (iii) receive a query containing an unspecified portion, (iv) identify one or more strings which are matches for the unspecified portion of the query within the contexts, and (v) produce results in which each of said one or more strings is ranked in accordance with a frequency of said each string within one or more contexts.

Claim 136, as amended herein, recites an apparatus for fulfilling an information need comprising: memory means that stores computer-executable process steps; and a processor that executes the process steps so as to(i) store contexts in which terms appear, (ii) receive a query containing an unspecified portion, (iii) identify one or more strings which are matches for the unspecified portion of the query within the contexts, and (iv) produce results in which each of said one or more strings are ranked in accordance with a frequency of said each string within one or more contexts.

Claim 143, as amended herein, recites computer-executable process steps stored on a computer-readable medium, the computer-executable process steps to fulfill an information need, the computer-executable process steps comprising: code to store contexts for terms, wherein a context occurs in a document, code to store information identifying a document in which a context occurs, code to receive a query containing an unspecified portion; code to identify one or more strings which are matches for the unspecified portion of the query within the contexts; and

code to produce results in which each of said one or more strings is ranked in accordance with a frequency of said each string within one or more contexts.

Claim 144, as amended herein, recites computer-executable process steps stored on a computer-readable medium, the computer-executable process steps to fulfill an information need, the computer-executable process steps comprising: code to store contexts in which terms appear, code to receive a query containing an unspecified portion; code to identify one or more strings which are matches for the unspecified portion of the query within the contexts; and code to produce results in which each of said one or more strings is ranked in accordance with a frequency of said each string within one or more contexts.

Culliss is summarized above.

Wical discloses a research mode in a search and retrieval system that generates a research document inferring an answer to a query from multiple documents. (See Abstract; Col. 2, Lines 11-13). Wical discloses identifying documents that collectively answer a search query by identifying a common denominator among the search query and themes in the documents. (Col. 3, Lines 31-34). Wical discloses a content processing system that analyzes the thematic, contextual, and stylistic aspects of the documents and generates a document theme vector identifying themes for each individual document. (Col. 4, Lines 54-63). Wical discloses relevance ranking documents with respect to a query and determining scores measuring the relevance of documents and themes to the input query (Col. 7, Lines 50-Col. 8, Line 30; Figure 2).

Applicants' Claim 59 is neither disclosed nor suggested by the references, taken separately or in combination, in that the references neither disclose nor suggest ***a method of fulfilling an information need based on documents and an index stored on a computer-readable medium comprising the steps of: storing contexts for terms, wherein a context occurs in a document; storing information identifying a document in which a context occurs; receiving a query containing an unspecified portion; identifying one or more strings which are matches for the unspecified portion of the query within the contexts; and producing results in which each of said one or more strings is ranked in accordance with a frequency of said each string within one or more contexts,*** as set forth in Claim 59. Culliss discloses displaying results of matched articles that may be ranked rather than ***results in which each of said one or more strings is ranked in accordance with a frequency of said each string within one or more contexts,*** as set forth in Claim 59. Wical discloses relevance ranking of documents rather than ***results in which each of said one or more strings matching the unspecified portions is ranked*** as in Applicants' amended Claim 59. Accordingly, the references do not disclose or suggest at least the feature of ***identifying one or more strings which are matches for the unspecified portion of the query within the contexts; and producing results in which each of said one or more strings is ranked in accordance with a frequency of said each string within one or more contexts,*** as set forth in Claim 59.

For reasons similar to those set forth regarding Claim 59, Applicants' amended Claim 82 is also neither disclosed nor suggested by the references, taken separately or in combination. In particular, the references neither disclose nor suggest ***a method of fulfilling an information need based on documents stored on a computer-readable medium comprising the steps of: storing an index identifying documents containing terms; storing contexts for terms, wherein a***

context occurs in a document; storing information identifying a document in which a context occurs; receiving a query containing an unspecified portion; identifying one or more strings which are matches for the unspecified portion of the query within the contexts; and producing results in which each of said one or more strings is ranked in accordance with a frequency of said each string within one or more contexts, as set forth in Claim 82.

For reasons similar to those set forth regarding Claim 59, Applicants' amended Claim 83 is also neither disclosed nor suggested by the references, taken separately or in combination. In particular, the references neither disclose nor suggest ***a method of fulfilling an information need based on documents stored on a computer-readable medium comprising the steps of: storing an index identifying documents containing terms; storing contexts for terms, wherein a context occurs in a document; storing information identifying a document in which a context occurs; receiving a query containing an unspecified portion; identifying a plurality of strings which are matches for the unspecified portion of the query within the contexts; and producing results in which each of said plurality strings is ranked in accordance with a frequency of said each string within one or more contexts,*** as set forth in Claim 83.

For reasons similar to those set forth regarding Claim 59, Applicants' amended Claim 84 is also neither disclosed nor suggested by the references, taken separately or in combination. In particular, the references neither disclose nor suggest ***a method of fulfilling an information need based on documents and an index stored on a computer-readable medium comprising the steps of: storing contexts for terms, wherein the context occurs in a document; storing information identifying a document in which a context occurs; receiving a query containing an unspecified portion; identifying a plurality of strings which are matches for the***

unspecified portion of the query within the contexts; and producing results in which each of said plurality of strings is ranked in accordance with a frequency of said each string within one or more contexts, as set forth in Claim 84.

For reasons similar to those set forth regarding Claim 59, Applicants' amended Claim 85 is also neither disclosed nor suggested by the references, taken separately or in combination. In particular, the references neither disclose nor suggest ***a method of fulfilling an information need comprising the steps of: storing contexts in which terms occur; receiving a query containing an unspecified portion; identifying one or more strings which are matches for the unspecified portion of the query within the contexts; and producing results in which each of said one or more strings is ranked in accordance with a frequency of said each string within one or more contexts,*** as set forth in Claim 85.

For reasons similar to those set forth regarding Claim 59, Applicants' amended Claim 103 is also neither disclosed nor suggested by the references, taken separately or in combination. In particular, the references neither disclose nor suggest ***a method of fulfilling an information need comprising the steps of:storing contexts in which terms occur; receiving a query containing an unspecified portion; identifying one or more strings which are matches for the unspecified portion of the query within the contexts; and producing results in which each of said one or more strings is ranked in accordance with a frequency of said each string within one or more contexts***, as set forth in Claim 103.

For reasons similar to those set forth regarding Claim 59, Applicants' amended Claim 135 is also neither disclosed nor suggested by the references, taken separately or in combination.

In particular, the references neither disclose nor suggest ***an apparatus for fulfilling an information need comprising: memory means that stores computer-executable process steps; and a processor that executes the process steps so as to(i) store contexts for terms, wherein a context occurs in a document, (ii) store information identifying a document in which a context occurs, (iii) receive a query containing an unspecified portion, (iv) identify one or more strings which are matches for the unspecified portion of the query within the contexts, and (v) produce results in which each of said one or more strings is ranked in accordance with a frequency of said each string within one or more contexts,*** as set forth in Claim 135.

For reasons similar to those set forth regarding Claim 59, Applicants' amended Claim 136 is also neither disclosed nor suggested by the references, taken separately or in combination. In particular, the references neither disclose nor suggest ***an apparatus for fulfilling an information need comprising: memory means that stores computer-executable process steps; and a processor that executes the process steps so as to(i) store contexts in which terms appear, (ii) receive a query containing an unspecified portion, (iii) identify one or more strings which are matches for the unspecified portion of the query within the contexts, and (iv) produce results in which each of said one or more strings are ranked in accordance with a frequency of said each string within one or more contexts,*** as set forth in Claim 136.

For reasons similar to those set forth regarding Claim 59, Applicants' amended Claim 143 is also neither disclosed nor suggested by the references, taken separately or in combination. In particular, the references neither disclose nor suggest ***computer-executable process steps stored on a computer-readable medium, the computer-executable process steps to fulfill an***

information need, the computer-executable process steps comprising: code to store contexts for terms, wherein a context occurs in a document, code to store information identifying a document in which a context occurs, code to receive a query containing an unspecified portion;code to identify one or more strings which are matches for the unspecified portion of the query within the contexts; and code to produce results in which each of said one or more strings is ranked in accordance with a frequency of said each string within one or more contexts, as set forth in Claim 143.

For reasons similar to those set forth regarding Claim 59, Applicants' amended Claim 144 is also neither disclosed nor suggested by the references, taken separately or in combination. In particular, the references neither disclose nor suggest ***computer-executable process steps stored on a computer-readable medium, the computer-executable process steps to fulfill an information need, the computer-executable process steps comprising: code to store contexts in which terms appear, code to receive a query containing an unspecified portion;code to identify one or more strings which are matches for the unspecified portion of the query within the contexts; and code to produce results in which each of said one or more strings is ranked in accordance with a frequency of said each string within one or more contexts,*** as set forth in Claim 144.

In view of the foregoing, Applicants request that the rejection be reconsidered and withdrawn.

The rejection of Claims 104-121, 137 and 145 under 35 U.S.C. 103(a) as being unpatentable over Wical is hereby traversed and reconsideration thereof is respectfully

requested. Applicants respectfully submit that Claims 104-121, 137 and 145, as amended herein, are patentable over Wical.

Claim 104, as amended herein, recites a method of fulfilling an information need comprising the steps of: storing contexts in which terms occur; receiving a query, wherein the query comprises a term; locating, within the stored contexts, information related to the term, thereby identifying information to fulfill the need; and producing results in which said information is ranked in accordance with a frequency of said information within one or more contexts. Claims 105-121 depend from Claim 104.

Claim 137, as amended herein, recites an apparatus for fulfilling an information need comprising: memory means that stores computer-executable process steps; and a processor that executes the process steps so as to(i) store contexts in which terms occur, (ii) receive a query, wherein the query comprises a term, (iii) locate, within the stored contexts, information related to the term, thereby identifying information to fulfill the need, and (iv) produce results in which said information is ranked in accordance with a frequency of said information within one or more contexts.

Claim 145, as amended herein, recites computer-executable process steps stored on a computer-readable medium, the computer-executable process steps to fulfill an information need, the computer-executable process steps comprising: code to store contexts in which terms occur; code to receive a query, wherein the query comprises a term; code to locate, within the stored contexts, information related to the term, thereby identifying information to fulfill the need; and

code to produce results in which said information is ranked in accordance with a frequency of said information within one or more contexts.

Wical is summarized above.

Applicants' Claim 104, as amended herein, is neither disclosed nor suggested by Wical in that Claim 104 neither discloses nor suggests ***a method of fulfilling an information need comprising the steps of: storing contexts in which terms occur; receiving a query, wherein the query comprises a term; locating, within the stored contexts, information related to the term, thereby identifying information to fulfill the need; and producing results in which said information is ranked in accordance with a frequency of said information within one or more contexts***, as set forth in Claim 104. As discussed above, Wical discloses relevance ranking of documents rather than ***results in which information is ranked in accordance with a frequency of said information within one or more contexts,*** as in Applicants' amended Accordingly, Wical neither discloses nor suggests at least the feature of ***locating, within the stored contexts, information related to the term, thereby identifying information to fulfill the need; and producing results in which said information is ranked in accordance with a frequency of said information within one or more contexts***, as set forth in Claim 104.

For reasons similar to those set forth regarding Claim 104, Applicants' amended Claim 137 is also neither disclosed nor suggested by the references, taken separately or in combination. In particular, the references neither disclose nor suggest ***an apparatus for fulfilling an information need comprising: memory means that stores computer-executable process steps; and a processor that executes the process steps so as to(i) store contexts in which terms occur,***

(ii) receive a query, wherein the query comprises a term, (iii) locate, within the stored contexts, information related to the term, thereby identifying information to fulfill the need, and (iv) produce results in which said information is ranked in accordance with a frequency of said information within one or more contexts, as set forth in Claim 137.

For reasons similar to those set forth regarding Claim 104, Applicants' amended Claim 145 is also neither disclosed nor suggested by the references, taken separately or in combination. In particular, the references neither disclose nor suggest ***computer-executable process steps stored on a computer-readable medium, the computer-executable process steps to fulfill an information need, the computer-executable process steps comprising: code to store contexts in which terms occur; code to receive a query, wherein the query comprises a term; code to locate, within the stored contexts, information related to the term, thereby identifying information to fulfill the need; and code to produce results in which said information is ranked in accordance with a frequency of said information within one or more contexts,*** as set forth in Claim 145.

In view of the foregoing, Applicants respectfully request that the rejection be reconsidered and withdrawn.

Applicants respectfully submit that newly added Claims 148-150 are also patentable over the cited art.

Based on the above, applicant respectfully requests that the Examiner reconsider and withdraw all outstanding rejections and objections. Favorable consideration and allowance are earnestly solicited. Should there be any questions after reviewing this paper, the Examiner is invited to contact the undersigned at 617-248-4042.

Respectfully submitted,
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